# A Business-Venture Approach to Green Building Programs

*Dana Banks, Portland Energy Conservation, Inc.*
*Lorraine Katz, Portland General Electric*

## ABSTRACT

Green building programs touch on many areas of interest such as energy efficiency, water conservation, building materials and site use. These subjects, unified by the common theme of green building, can create multiple partnership opportunities for market participants. Since green building programs hold such wide appeal, program offerings are increasing. One program, Earth Advantage™, originally developed by Portland General Electric (PGE), has been adapted to be licensed to different market players in the utility and building industry. This paper provides an overview of the green building movement, describes the Earth Advantage residential new construction green building program and presents the Earth Advantage licensing offer.

Comprehensive green building programs are moving into the mainstream, particularly in the new construction market. Green building has evolved from its early beginnings as an alternative approach to a more comprehensive and legitimately supported movement around building design and construction. Current opinion about the best ways to promote the adoption of sustainable building practices is wide-ranging. However, most proponents are finding that one of the most successful strategies involves establishing relationships with a variety of market participants who embrace the common values and goals of environmental stewardship, a healthier environment, and the efficient use of energy and natural resources. Licensing an existing program presents a unique business-venture approach to extending the presence of green building in the market place. Those who are interested in enhancing the market presence of an existing program or rapidly introducing a new offer into their market may find this approach effective. It provides the potential to integrate the actions of a variety of green building partners. By leveraging and expanding these relationships a wider audience for green building can be reached increasing the opportunity to achieve significant energy and resource savings.

## Green Building Definition

There are many different green building definitions and not one is universally recognized. When you also consider that green building, resource efficiency and sustainable design are frequently used interchangeably, a distinct green building definition becomes more ambiguous. However, at least two common themes are traditionally found in most green building discussions. One focuses on promoting the use of building materials and techniques that result in a healthier and safe living environment. The second focuses on promoting environmental responsibility and energy efficiency throughout the design and construction process. Described here environmental responsibility will be defined as practices which support the protection of the earth's ecology and its air, water, and land resources. The following statement combines all these themes into a definition that will be used for the context of this discussion: *Green building refers to practices that promote the*

*health, comfort and well -being of the building occupants while minimizing the impact on the environment.*

## Introduction

Over the past few years, consumer awareness of green building practices has increased, and subsequently so has demand. Builders and building suppliers are increasingly promoting themselves as green, and more governments are promoting green building practices in their local building codes and in their own building projects. As knowledge and understanding expands and more innovative building materials become more readily available, it is clear that the steps to making a building green are not as monumental as previously thought. While some of the early green building movements may have been considered to be radical approaches conjuring images of straw bale and rammed earth dwellings, green building is no longer seen as a drastic alternative and is beginning the transition into the mainstream (Breyer 2002).

One of the reasons we may be seeing a trend towards green building can be attributed to the broad appeal it embodies. Green building addresses resource efficiency, indoor air quality and environmentally responsible building materials and practices. These features appeal to utility stakeholders, environmental organizations, the building industry, and homeowners. Utilities are able to acquire resource savings, such as energy, natural gas and water. Building industry organizations (builders, real estate agents and lending institutions) can differentiate themselves in a very competitive marketplace by aligning themselves with what are perceived as value-driven and innovative business practices. Environmental organizations support the virtues of green building because of its ability to minimize the impact on precious forest and water resources. And finally, studies have shown that homeowners today are drawn not only toward the energy efficiency benefits associated with green building, but are becoming increasingly more interested in the health and environmental benefits (Roberts 2001).

## Green Building Movement

Up to the early 1990's, only various elements of green building were being promoted. Energy efficiency was the main focus from the utility sector as building programs like GoodCents® centered around improving building envelope efficiency and saving energy in electrically heated homes. In the early 1990's design elements such as fresh air intake, and advanced framing were often incorporated into residential construction as building science attempted to cope with the increasing costs of building materials and the stale air effects caused by tighter building envelopes. On the environmental front, alternative practices, such as rammed-earth or all-solar heated homes were being tried but considered to be fringe approaches not in alignment with the traditional building industry.

Later, organizations such as the Rocky Mountain Institute began promoting the full spectrum of what we now refer to as green practices. They touted the advantages of incorporating all the best in sustainable practices like energy efficiency, passive solar design, water conservation, site use, and indoor air quality. Over the past decade, we have seen the emergence of organizations which further legitimized support for green building. Examples include the U.S Green Building Council (USGBC) and the U.S Department of Energy's

Center for Sustainable Development. The National Association of Home Builders (NAHB) has also become a prominent supporter of green building and helped organize and sponsor the first National Green Building Conference in 1999.

In the mid-1990's, green building transitioned into the "program" arena. In certain parts of the country, organizations (utilities, homebuilder associations, municipal governments) began to dedicate resources to promote green building in their areas. These programs were critical to helping move green building forward. In support of these programs, we have also seen an increase in resources, information, awareness, and products in the marketplace. As a result, green building programs have provided a catalyst to reinforce the infrastructure that is helping transition green building into the mainstream. One such program, which is the focus of this paper, is Earth Advantage.

## Green Building Programs

Green building programs have been in existence less than ten years with the first program launched in 1993 in Austin, Texas. Over the past few years, there has been a marked increase in the number of programs. To date, there are approximately 20 residential new construction green building programs around the country. Table 1 lists twelve of the most prominent programs along with the market area, type of administration and years in existence.

**Table 1. Overview of Prominent Green Building Programs**

| **Program Name** | **Market Area** | **Admin. Type[1]** | **Years in Existence** |
|---|---|---|---|
| Austin Green Building Program | Austin, TX | Municipal Utility | 8 |
| Built Green Colorado | Colorado State | HBA | 6 |
| Building America Program New Mexico | Albuquerque, NM | HBA | 5 |
| Build a Better Kitsap | Kitsap County, WA | HBA | 5 |
| Earth Smart® (later became Earth Advantage™) | Northwest | Utility | 5 |
| Build a Better Clark | Clark County, WA | HBA | 4 |
| Scottsdale Green Building Program | Scottsdale, AZ | Municipal Government | 3 |
| Earth Advantage™ | Northwest | Utility | 2 |
| EarthCraft Homes™ | Atlanta, GA | HBA | 2 |
| Green Built Home™ Wisconsin | Wisconsin State | Non-Profit | 2 |
| Built Green Washington | King & Snohomish County, WA | HBA | 1 |
| Florida Green Builder Coalition | Florida State | Non-profit | 1 |
| GoodCents® Environmental Homes | National | Private Company | 1 |

Notes: (1) Home Builders Association.

PGE conducted an in-depth review and analysis for each program listed in Table 1. Based upon that review, the following observations can be made:

**Commonalities**

- Collaboration with a network of building professionals is critical to program success, especially the local HBA.
- Promotion of the four key green building messages including energy efficiency, healthy indoor air, resource efficiency and environmental responsibility.
- Builder education requirement.
- Some form of program marketing.
- Some form of certification (either self, visual inspections or performance testing).
- Primary focus on single-family new construction.

**Other Observations**

- Many programs are administered by an HBA, but few use that as a source of funding.
- Most programs were launched originally as complete green building programs with a slightly more pronounced focus on the environmental aspects, with the exception of Earth Advantage and Good Cents® which evolved from utility sponsored energy-efficiency platforms.
- Many programs' energy efficiency requirements are aligned with the ENERGY STAR® Homes requirements[1], but few are taking the opportunity to actively co-brand or co-market with ENERGY STAR.

## Challenges

Although the green building movement is growing and picking up momentum, there are still several challenges to overcome before it becomes a mainstream approach. One of the primary challenges is a lack of consistency in messaging. As mentioned previously, there is not a universally recognized definition. In addition, there still exists a high degree of misinformation or lack of awareness by both consumers and the building industry. There are several green building programs around the country working to increase awareness, but they are few and exist only in geographic pockets.

Unlike the commercial sector, there does not exist a national standard to define a residential green building. The USGBC is in the process of developing a set of Leadership in Energy and Environmental Design (LEED)[2] standards which will help support adoption of green building practices and increase the likelihood of city governments adopting standards for local building codes (Friedman and Komor 2001).

[1] ENERGY STAR homes are typically 30% more energy efficient than the Model Energy Code and must achieve a Home Energy Rating System (HERS) score of at least 86. The HERS score must be verified by a third-party HERS rater.

[2] LEED is a recommendation and rating system developed by the USGBC to support comprehensive green building in commercial buildings.

Another challenge the green building industry faces is the debate over contradictory factors sometimes associated with green measures or materials. For example, engineered wood products which reduce waste by using raw materials more efficiently can also be associated with indoor air quality issues due to the use of formaldehyde binders in their manufacture. Installing fiber cement siding helps minimize the impact on forests, but there is a high embedded energy associated with the manufacture of cement (O'Brien2002). These conflicting factors can be difficult to quantify and reconcile.

## The Earth Advantage™ Solution

One program that is working to help move green building into the mainstream is Earth Advantage. Designed and operated by Portland General Electric (PGE) in an unregulated environment, Earth Advantage is a comprehensive program that has incorporated many of the features from other successful programs. One particular feature that sets Earth Advantage apart is the brand identity and increasing brand equity. Increasing the exposure and building the equity of the Earth Advantage brand can only succeed through quality assurance, industry collaboration, and program flexibility. The Earth Advantage program incorporates all those elements and, in an effort to increase its brand exposure and support the movement of green building into the mainstream, has developed a licensing component. By licensing the program, PGE hopes to offer others the opportunity to benefit from the societal and economic benefits which have become associated with sustainable building practices.

## Earth Advantage Background

Earth Advantage was launched in 1999, but has undergone nine years of evolution from an energy-focused program into a comprehensive green building program. Earth Advantage's roots are based originally in the GoodCents®[3] Program which PGE licensed through Bonneville Power Administration in the 1980's and early 1990's. The program was designed to support energy efficiency in electrically heated homes. PGE later upgraded the program in 1992. It was renamed Super Good Cents® (SGC) and served as a mainstay program in the electric utility's resource acquisition effort.

In the early 1990's, PGE began noticing increased customer interest in environmental concerns in the Northwest and theorized that by combining the building envelope-focused energy efficiency components of SGC with environmental elements like resource efficient materials and indoor air quality, they could create a more comprehensive and compelling offer for customers. In addition, they wished to incorporate equipment options such as energy efficient appliances and fluorescent lighting (McLain 2002). This thinking supported the eventual development of the Earth Smart® program in 1994. This full-feature green building program promoted energy efficient and environmentally responsible new construction throughout the Northwest. With consumer awareness still increasing and green building materials becoming more affordable and accessible, PGE upgraded and renamed the offer in 1999transforming it into the Earth Advantage program operating today.

[3] GoodCents® was a residential new construction building program originally developed by Southern Company and licensed throughout the U.S.

## Program Overview

The Earth Advantage program is designed to be both comprehensive and flexible. For example, it is a fuel blind program, but can be easily promoted to optimize natural gas or electricity savings without compromising the other environmental aspects. The following section provides an overview of each program component.

### Key Messages

Earth Advantage promotes energy efficiency and environmental sensitivity in quality residential new construction. The program incorporates changes in construction that reduce environmental impacts and reduce energy use. It follows a typical construction project from planning to planting – site preparation, foundation, rough-in, finish work, landscaping and clean up. Each project is rated against four specific benchmarks: energy efficiency, healthier indoor air, environmental responsibility, and resource efficiency.

### Builder Enrollment

Enrolling builders is critical to the success of any new construction program. Earth Advantage is not intended to be adopted by the building industry at large, but by builders that want to maintain a level of quality that sets them apart from the competition. Each participating builder must sign an agreement and pay a participation fee. Participating builders receive technical and marketing support that can include plan reviews, educational seminars, co-op advertising opportunities, marketing materials and promotion on the website.

Once a builder is enrolled, they then proceed to use the program resources to build and sell certified Earth Advantage homes. Since few financial incentives are available apart from tax credits for efficient appliances in Oregon state, the builder must sell the home based on its merits. This proposition is becoming less difficult as awareness is increasing and the resource savings far outweigh the initial cost. Typically, the initial additional cost required to achieve the Earth Advantage certification is minimal and quickly offset by the utility bill savings and home value.

### Qualification Process

Each Earth Advantage home is designed with four key criteria in mind: energy efficiency, healthier indoor air, environmental responsibility, and resource efficiency. Each Earth Advantage measure has been assigned a point value in each of these four categories. Table 1 is a sample of the Earth Advantage measures and Point Rating System. This table is a sample to give a flavor of elements in an Earth Advantage certified home. The last line on the table reflects a home that includes as many Earth Advantage measures as practical, which shows how much choice a builder has in the program.

**Table 1. Sample of Earth Advantage Measures and Point Rating System**

| Sample Measure | Energy Efficiency | Healthier Indoor Air | Environmental Responsibility | Resource Efficiency |
|---|---|---|---|---|
| Advanced Framing | 5 | 0 | 8 | 10 |
| High efficiency wood windows with a U-value of .35 or less | 10 | 8 | 2 | 6 |
| Premium Efficiency clothes washer | 8 | 0 | 6 | 4 |
| Remove Invasive Plants from site | 0 | 0 | 4 | 0 |
| Recycling Construction Waste | 0 | 0 | 12 | 14 |
| . Other measures . | . . . | . . . | . . . | . . . |
| **Points Required to become a Certified Earth Advantage Home** | **50** | **50** | **50** | **50** |
| **Possible Points with maximum practical Measures** | **165** | **200** | **310** | **240** |

Each Earth Advantage home must attain at least 50 points in each of the categories. The point values are determined from engineering modeling, actual evaluated program results, and consulting experts in energy and environmental fields of expertise. Builders can choose from an extensive list of measures in the following categories:

- Shell Construction
- Core Ventilation
- HVAC
- Water Heating
- Lighting
- Appliances
- Foundation
- Framing
- Siding
- Roofing
- Insulation Materials
- HVAC
- Interior Surfaces
- Surface Coating
- Cabinets
- Countertops
- Casework, Stove/Fireplace
- Flooring
- Finish Plumbing
- Land and Water
- Waste Management

Some of these categories have required measures, but the system allows the builder flexibility in designing the Earth Advantage home.

**Certification**

In order for a home to receive Earth Advantage certification, it must undergo several inspections. This is not a self-certifying program. Periodic inspections during the construction process and performance testing provide the third-party credibility that all the Earth Advantage requirements are met. These include walk-through inspections during

construction, a duct blaster test and a blower door test. The inspections and testing ensure that program standards are being achieved and help to assure the integrity of the program. Also, periodic visits to the job site by program representatives throughout construction provide the builder support especially for those who are new to green building practices.

Once the house passes the inspections and testing, it is certified as Earth Advantage and the homeowner and builder receive a certificate. The certificate lists all the measures that were installed along with information explaining the benefits of the features added to the home. The builder is charged a certification fee per home that varies by type of construction (single-family, multi-family and manufactured). The builder may choose to pass it on to the homebuyer, but typically that is not the case.

**Education**

As was evident from the review of existing green building programs, education and information transfer must not be overlooked. It is challenging enough to get builders and homebuyers to understand the intangible benefits of building energy efficient homes, but this becomes even more complicated with the added environmental features of indoor air quality, resource efficiency and environmental responsibility. Earth Advantage has developed a series of education classes to target builders, realtors, other industry professionals and homebuyers. The lessons are not only designed to inform each target audience about the benefits of Earth Advantage but also to educate them on green and energy efficient building practices.

**Marketing**

The Earth Advantage marketing program is designed to build and reinforce the marketplace identity of Earth Advantage. The marketing program includes a communications strategy to deliver the Earth Advantage message to a target audience and a sponsorship program to ally with market players. The communications strategy is designed to increase the understanding of the value of Earth Advantage and promote brand recognition. This strategy is comprehensive and multi-faceted and targeted to a variety of audiences including builders, homebuyers, realtors and building suppliers. The marketing campaign that supports the communications strategy incorporates print and radio advertising, public relations, special promotions, direct mail, a builder newsletter, marketing collateral and a website (www.earthadvantage.com).

Another key element to the marketing effort is program sponsorship. The program is beginning to attract national, regional and local sponsorship interest. Program sponsorships are custom designed to incorporate a variety of co-branding and co-marketing opportunities and are a great way to expand the Earth Advantage reach and build relationships with the key market players.

**Brand Identity**

One of the most effective methods to build program awareness is to establish a brand identity. Earth Advantage is not just a program name, but a brand. Brand identity includes brand names, logos, positioning, brand associations, and brand personality. A comprehensive

brand strategy has been developed and is being heavily promoted in Oregon and Washington State. The general public and the building industry have begun associating Earth Advantage with quality green building. Other programs that adopt or license Earth Advantage will benefit from this strong brand identity.

## Program Licensing

### Definition

The definition of licensing presented in this paper refers to the formal permission or authority that is granted by one entity (licensor) to another (licensee) allowing the access and use of proprietary program information and operating processes, and use of company trade and service marks associated with the program. This concept is not new to the realm of energy efficiency as it was executed successfully by Southern Company with the licensing of the GoodCents® new construction program in the 1980's.

### Advantage and Disadvantages of Licensing

There are some distinct advantages associated with choosing to license a green building program versus developing one from scratch. Licensing can help circumvent a good share of the research and development process which is costly and resource intensive. This may be particularly important as it relates to green building programs because of the broad variety and evolutionary nature of the subject matter. Energy efficiency has benefited from many years of study and support resulting in the establishment of ENERGY STAR and consensus around the evaluation of technical data. But concepts like resource efficient building materials, environmental practices and indoor air quality are still in more formative stages of development. They are not easy to quantify and universally accepted standards or evaluation methods do not yet exist. Sustainability experts can attest to the ongoing debate around these subjects (O'Brien 2002).

Licensing can also help avoid the considerable time and effort associated with assessing the market and implementing pilot offers in an effort to find a winning design. By capitalizing on existing program processes, marketing strategies, and market relationship building techniques that have already been tested by the licensor, the licensee can capitalize on a bank of accumulated knowledge and experience. This can provide an avenue for a quick jump-start into the world of green building.

Conversely, there are some potential downsides to licensing a green building program. The process of researching the marketplace and learning the intricacies of sustainability can be valuable for an organization. Experiencing program development offers the chance to more fully internalize green building concepts and even involve the local building community in the development process. The upfront cost associated with purchasing a license can also be an obstacle because it forces a large initial cash outlay versus spreading the costs of design and implementation out over time. Finally, a comprehensive green building program may not be the one most suited for certain markets. Regulatory influences, the local economy, and building market preferences may create an atmosphere where other types of building programs would see more success.

### Licensing Candidates

Those most interested in licensing any green building program will probably be motivated by several market influences. Prospective candidates might include large utilities (investor-owned or public), regional energy consortiums, municipalities, builders associations, and perhaps even building materials suppliers.

Most market participants have at least one key driver that could readily influence their potential involvement. The following examples highlight a few of these drivers:

- Utilities (electric and water in particular) - interested in managing load and resources efficiently allowing them to maximize the use of their existing capital infrastructures.
- Regional energy consortiums - interested in promoting the use of energy efficient technologies and advocating strategies that support sustainable energy policies.
- Municipalities - interested in providing cost effective utility services, planning for sustainable economic and community growth and development, and managing local waterways, protected wetlands and green spaces within their jurisdictions.
- Builders and builders associations - interested in providing their membership with value-added marketing and educational services that help improve and promote quality construction practices in their market.

The most effective licensing participant, however, might actually be a custom coalition of players. For example, an electric utility, a water utility, and a local builders association could combine forces to purchase a license that provides benefits for all. By teaming their respective resources, skills, and experiences a custom coalition such as this can greatly enhance the chances of promoting green building to a wide audience and increases the likelihood of implementing Earth Advantage successfully.

This idea of networking a variety of market players is also suggested by research recently published by E-Source. They suggest that selling any green product or service can benefit by employing strategies like co-branding or cross-selling with compatible, non-competing products and services, partnering profit and non-profit entities, and in general by creating opportunities to place themselves in front of a customer base that often shares similar values, lifestyles and purchasing behaviors (Friedman & Komor 2001).

## Licensing Program Overview

A discussion of the elements of this offer should first include the objectives used to guide the development process. This may help provide an additional frame of reference for explaining the emphasis on certain design elements and program features. The Earth Advantage licensing offer was designed based on the following key objectives:

- Design an offer which is consistent with PGE's corporate values of promoting the adoption of energy efficiency and environmental responsibility.
- Make the design flexible enough to be operated in both regulated or deregulated environments.
- Design the program so that it can be presented as an independent offer or as a compliment to an existing building program.

- Make the design flexible enough to compliment the focus of a wide range of market participants.
- Provide effective supporting services for program customization and implementation.
- Provide an additional source of revenue generation for PGE in a new environment of deregulation.

The licensing process itself involves three basic steps. First, the participants needs and objectives are assessed, second a proposed package of program materials and services is developed, and third, the package of customized materials and services are prepared and delivered for program implementation. These steps are discussed in more detail below.

**Participant Assessment**

The needs and objectives of any licensee will vary with their local market conditions, their involvement with the building industry, and their own strategic focus as an organization. The assessment process helps build a profile of the participant which outlines their specific objectives and interests in implementing green building, their relationship with the local building industry and supply network, the condition of the economy and building market in their area, and the resources they have available to operate a program. This profile creates a clear picture of all the dynamic market, economic, and regulatory influences the participant must consider and serves to reveal the operative areas for customizing the offer for the local market conditions.

**Custom Package Development**

After the specific profile of a prospective licensing participant has been developed, an appropriate licensing package can be designed. Program features and services are offered in the form of three core packages or tiers. Each tier is priced based upon the quantity of services included. There are three tiers of packages. Tier one offers the most streamlined version of program elements and is lowest in price, while tiers two and three provide a more extensive menu of features and services and are priced higher accordingly.

All packages provide everything needed to set up and operate the program in a turnkey fashion. This includes access to planning and implementation guidelines, customization of program materials for local building codes, practices and climate zones, as well as basic program marketing materials. In addition, basic program operational training is provided which includes both administrative and technical field procedures. Core packages in Tiers two and three provide more in-depth training around program technical elements and sustainable construction practices, a broader availability and customization of marketing materials, and additional educational resources.

**Optional Services**

Once the core package of program services has been established, the licensee may choose from two menus of individually priced services. These are Consultation Services and Implementation Services. Consultation Services are provided for a licensee who may require additional education or support around establishing networks in the building industry,

developing customized marketing materials, or assistance in program operational planning and set up.

Implementation Services are provided for clients who require Earth Advantage to perform some, if not all, program operations for them. Depending upon the needs of the licensee, Earth Advantage can supply program set up services, sales and marketing functions, program administration services or technical and field operations for the participant.

**Customization and Implementation**

After the appropriate package of services has been developed for a licensee, the customization process begins. This process focuses on reviewing measure recommendations and amending them as needed for local climate zones, building practices, and housing styles. In this stage the measures can also be adjusted for a more prominent focus on one or more of the Earth Advantage key elements of energy efficiency, indoor air quality, resource efficiency, or environmental stewardship. In addition, while the program is now designed as fuel blind the recommendations can be adjusted to focus on one specific heating source as desired by the licensee. Finally, the program is adapted for the level of quality control required by the client. Earth Advantage can be adapted to require maximum levels of home energy performance by incorporating its performance testing and modeling aspects. Or, it can be designed to provide a more prescriptive approach of program recommendations and quality control.

After the program is customized and reviewed by the client for acceptability, the licensing package is ready for implementation. The licensee may opt to include some implementation support services in the licensing package or rely on their own experience and resources to execute a program rollout.

## Conclusions

Green building programs continue to grow in popularity around the country but creating a successful program for a local market can be challenging. Some have developed programs from scratch, enlisted the help of consultants, or sought the guidance provided in references developed by organizations like the National Association of Home Builders (NAHB). The Earth Advantage licensing offer presents a new option for those interested in developing a green building program. Those considering this alternative should evaluate the associated advantages and disadvantages. Some advantages to licensing a green building program might include:

- Avoiding the high costs and extensive time element associated with research and development and experiencing the advantages of entering the green building market more quickly.
- Utilizing information and resources already compiled to more easily navigate a very complex and evolving discipline covering a diverse array of subjects.
- Capitalizing on actual program experience that covers tested program operational processes and marketing strategies.

Disadvantages might include:

- Lost opportunity to involve local market players in the development process and solidify their early buy-in to a new program.
- Implementing a program that may not be the best suited for the local economic, market or regulatory conditions.
- First cost associated with the up-front licensing fee versus spreading the costs of development and implementation out over time.

Regardless of the method employed to create a program, it is clear that these offers will continue to evolve and green building will continue to move into the mainstream. Many stakeholders might find benefits in aligning themselves with this movement. Partnering strategies have shown themselves to be successful both for green building programs and green marketing efforts in general. In the case of green building, partnering offers the chance to widen the potential audience and increase the opportunities to achieve energy and resource savings.

## References


Breyer, R.M. 2001. "It's getting easier to be green." *Austin American Statesman,* April 27.

Friedman, B. and P. Komor 2001. *Across the Green Divide: What Green Energy Marketers Can Learn from Other Green Marketers.* GE-6. Boulder, Co.: E-Source

McLain, John (Portland General Electric Efficiency Services). 2001. Personal communication. February 21.

O'Brien, Kathleen (O'Brien & Company). 2002. Personal communication. February 15.

Roberts, J. 2001. "The State of Green Building 2001." *Professional Builder 66,* (11): 67.